

Remarks

Claims 1, 4 and 8 to 11 are amended. Claims 1 to 14 are pending in this application of which claims 1, 7, 8 and 14 are in independent form.

The applicants' attorney thanks Examiners Misleh and Vu for the personal interview held on November 3, 2005 and for their consideration of the draft amendment presented at the interview. At the interview, it was mutually agreed that the independent claims 1 and 8 of the draft amendment overcome the previous grounds of rejection. The following will show that this conclusion is indeed correct.

Claims 1 to 3, 5, 6, 8 to 10 and 12 to 13 had been rejected as being anticipated by GB 2,116,397 to Wilson. The applicants will now show that independent claims 1 and 8 patentably distinguish their invention over this reference.

In the action, the view was expressed that Wilson's motion sensing device 10 inherently discloses an angular sensor such as an inertial sensor for detecting movement of the camera for correction. Furthermore, the view was expressed that since the camera is mounted on a vehicle or aircraft, it is inherent that the motion sensing unit detects the movement of the carrier.

The Office also stated that Wilson discloses that the output of the motion sensing unit as well as the output of the camera is stored in a memory 17 which can correct for stabilization during imaging or at a later time (page 1, second column, lines 90 to 98; and page 2, first column, lines 42 to 62). The view was

also expressed that both image data and data from the motion sensing unit are inherently delayed since they both are stored in the memory for correction.

Wilson discloses a video picture stabilizing system in which video signals and motion signals of a motion sensing unit are stored in a memory 17. Both types of data, that is, the output video signals and the motion signals can be, due to the storage in memory 17, processed with a time delay. Wilson discloses that the original picture position error can be corrected by varying the delay between reading into and out of a video store in a suitable manner (page 2, left column, lines 42 to 61). Thus, a "time delay" is created due to the storage in the memory.

In contrast to Wilson, applicants' claim 1 requires:

"detecting said flight movements of said carrier as angular data with an inertial sensor having a finite bandwidth causing said inertial sensor to supply said angular data with a time delay;

delaying said image data by a time interval which considers said time delay; and,

correcting the delayed image data in accordance with said detected angular data to thereby eliminate the unwanted movement influences of said flight movements of said carrier."

Claim 8 is amended to be coextensive with claim 1 in an apparatus context.

Accordingly, the inertial sensor itself provides the angular data with a time delay. That means, the angular data is already taken up with a time delay by this inertial sensor. The image data is then corrected by a time delay of the image data. This

correction occurs by means of a time delay of the image data by a time interval which considers the time delay of the angular data. The time delay of the image data relative to the angular data (which, in turn, is provided by the inertial sensor with a time delay) allows compensating for the time delay of the inertial sensor which is caused by its finite bandwidth as now also set forth in claim 1. As a result, stabilization is obtained that is as accurate as possible.

A correction in both directions (direction of flight as well as direction traverse to flight) can thus be achieved with the method of the applicants' invention.

Accordingly, Wilson's "time delay" differs significantly from that of the presently claimed invention.

In addition, Wilson does not provide any information as to what type of "motion sensing unit" he uses. The Office acknowledges that Wilson does not explicitly disclose an "inertial sensor," but considers this feature inherent. Applicants respectfully disagree with the Examiner's analysis. Even assuming that Wilson would have used in 1982 an "inertial sensor," which applicants deny, there is no indication that Wilson recognized the consequences of the use of such an inertial sensor. As noted above, the use of an inertial sensor results in a time delay due to the limited bandwidth of the inertial sensor, which requires compensation. In Wilson, a compensation for the resulting time interval is not mentioned. Not considering this time interval in the position correction would result in a residual error, which might have been acceptable in 1982, but is not acceptable today.

For the reasons advanced above, applicants submit that claim 1 patentably distinguishes their invention over Wilson as concluded at the interview so that claim 1 should now be allowable. Claim 8 parallels claim 1 in apparatus context and has been similarly amended so that this claim as well as the dependent claims 2 to 6 and 9 to 13 should also be allowable. Claims 7 and 14 were allowed after the first action.

The application should now be in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Walter Ottesen". The signature is fluid and cursive, with the first name "Walter" and last name "Ottesen" clearly distinguishable.

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